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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,061	11/25/2003	Robert Karlsson	740073.462	4156

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EXAMINER

LAM, ANN Y

ART UNIT	PAPER NUMBER
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1641

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05/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/722,061	Applicant(s) KARLSSON ET AL.	
	Examiner Ann Y. Lam	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,10,12-19 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5-8,10,12-19 and 35 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20070511</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Objections

Claims 1-2, 5-8 and 15 are objected to because of the following informalities.

The limitation “an analyte” (in line 2 of claim 1) and the limitation “a reference analyte” (in line 5 of claim 1) should be designated as —a first analyte—and —a second, reference analyte--, or in some similar manner so that it is clear as to what “the analyte” refers (in claim 1 and the subsequent dependent claims). The designation (e.g., --the first analyte--, and --the second, reference analyte--) should be made in the dependent claims listed above as well. While Examiner understands that “the analyte” is intended to be distinct from “the reference analyte”, a different designation such as the example above would clarify the claims.

Also in claim 1, line 20, after “determining”, Applicants should add —from a label-free detection technique--. While it is understood that Applicants intend to limit the claimed invention to those involving label-free detection techniques, there are several detection steps (one in the step of “monitoring” and at least one more in the step of “determining”, that is after increasing the concentration of one of the analytes that has the faster dissociation phase), and thus adding the language suggested above would more clearly indicate that the determining step is also based on a label-free detection technique. Otherwise, the determining step could be interpreted to encompass detection techniques that use labels.

Moreover, in claim 1, line 23, after “wherein”, Applicants should add –an influence in which--. While it is understood that Applicants intend for the correlation in the wherein clause to be referring to the influence recited in line 20, adding the suggested language would clarify that the correlation in the wherein clause is the influence that is determined in the step in line 20. Otherwise, the wherein clause could be simply interpreted to be a mere recitation of a correlation and the determining step in line 20 could be interpreted to be any kind of influences.

Appropriate correction is required.

Drawings

The drawings are objected to because the unlabeled binding curve in figure 8 should be labeled. (The brief description of figure 8 describes the drawing to be an overlay sensorgram with five superposed binding curves for the binding to a protein kinase of four inhibitors A-D and ATP. However in the drawing of figure 8, only the curves for A-D are labeled. It appears that the unlabeled binding curve should be labeled “ATP”.) Also in figure 9, the unlabeled binding curve should be labeled. (The brief description of figure 9 describes the drawing to be an overlay sensorgram with four superposed binding curves for the competing binding to a protein kinase of an inhibitor A and ATP at increasing concentrations of ATP. However in the drawing of figure 9, only three of the binding curves are labeled. The fourth binding curve has a line drawn to it but is not labeled, and it appears that it should be labeled like the other binding curves.)

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

Claims 1-2, 5-8, 10, 12-19 and 35 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest a method of monitoring by a label-free detection technique a dissociation phase of a mixture of two analytes to obtain a dissociation phase binding curve and increasing the concentration of the analyte that

has the faster dissociation phase, and determining whether the two analytes bind to the same or different binding sites on a ligand by determining (by a label-free detection technique) the influence of the increased concentration on the dissociation phase binding curve profile, wherein a reduced contribution to the dissociation phase binding curve profile for the mixture from the analyte that has the slower dissociation phase indicates that the two analytes bind to the same binding site.

Response to Arguments

Applicants' arguments filed March 5, 2007 have been fully considered and are persuasive. Applicants' amendment to the claims to recite monitoring by a label-free detection technique to determine the dissociation phase of the interaction of the mixture and a reduced contribution to the dissociation phase binding curve profile distinguishes the present claims from the prior art of record. However, the claims should be clarified as indicated above. Also, Applicants should cancel the withdrawn claims to put the application in condition for allowance.

Conclusion

This application is in condition for allowance except for the above formal matters.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is 571-272-0822. The examiner can normally be reached on Mon.-Fri. 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



ANN YEN LAM
PATENT EXAMINER